MISSOURI DEPARTMENT OF NATURAL RESOURCES HAZARDOUS WASTE PROGRAM SUPERFUND SECTION

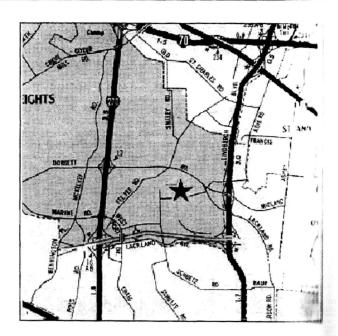
# ANNUAL REGISTRY SITE REMEDIAL ACTION UPDATE

1. SITE NAME AND LOCATION/CLASSIFICATION		
STATE LEADEPA	CURRENT SITE CLASSIFICATION  A LEADCLASS ICLASS IICLAS	S III <u>√</u> CLASS IVCLASS V
SITE NAME Chevron Chemical		d country St. Louis Country
2. REMEDIAL ACTION UPDATE (Please describe remedial action progress completed during the last fiscal year) Check one of the following:		
Comments included below.		
Comments attached/edited and revised last year's annual report write-up.		
No comments/no remedial actions implemented in past fscal year.		
COMMENTS		Site: Cheuron Chem Co NEW MODOO 6272355 Break: 7.4 Other: ND
3. CLASSIFICATION RECOMMENDATION (PROJECT MANAGER'S RECOMMENDED CLASSIFICATION BASED ON CURRENT CONDITION OF SITE)		
CHECK ONE OF THE FOLLOWING		0.100 N
✓ STAY THE SAME	CLASS I CLASS IICLASS III	CLASS IV CLASS V
4. PREPARED BY		
PROJECT MANAGER/COORDINATOR  Cutherine Barrett	DNR/SUPERFUND DNR/RCR/ DNR/VCPU.S. EPA/SUPERFUND U.S. EPA/RCRA	
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04 00 SUPERFUND RECORDS

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**Classification**: Class IV

<u>Site Name</u>: Chevron Chemical Company

Address: 2497 Adie Road, Maryland Heights, St. Louis County, Missouri, SW 1/4, SE 1/4, Sec. 23, T. 46N, R. 5E, Creve Coeur Quadrangle

Waste Type: Pesticides and Arsenic

**Quantity:** Not determined.

## Site Description:

The site is a former pesticide/fertilizer formulation plant that operated for over 30 years. The plant experienced spills and leaks that may have contributed to contamination at the site. The site is located in a light industrial area in the Fee Fee Creek watershed. Fire debris contaminated with pesticides were buried on-site in unlined pits in the 1950's. This area is currently located under buildings and is not accessible. Additionally, up to 4,800 pounds of the fungicide Maneb were buried on-site in 1974. A change of land use was requested and approved, for use of the facility as warehouse space for a telephone book recycling operation and a publishing business. Neither business will impact or

influence current site conditions. The entire property is listed on the *Registry*.

Present Property Owner: Chevron

Chemical Company

Lead Agency: EPA

## **Environmental Problems Related to Site:**

Pesticides have been detected in the soil and shallow groundwater on the plant site. In 1981, the level of groundwater contamination was as high as 2,300 parts per billion (ppb) of 2,4-D. Groundwater contamination has been found at the perimeter of the hazardous wastes ite, in the downgradient direction of the groundwater flow.

## **Remedial Actions at Site:**

The Chevron Chemical Company has submitted soil sampling data, as well as groundwater monitoring data, to the U.S. Environmental Protection Agency (EPA). The company plans to continue quarterly groundwater monitoring at the site. Field work at the site includes 23 on-site monitoring wells, five off-site monitoring wells, six off-site soil borings at the suspected arsenic spill site, a surface geophysical survey, and 56 on-site soil borings. An abandoned sewer system at

the facility was pumped of its contents in February 1987. Sampling of the runoff collected in the sewer indicated some pesticide and arsenic contamination. Surface water samples collected in March 1987 did not indicate significant levels of contamination. A sample collected from a seep below Building D indicated low levels of arsenic and pesticide contamination.

A supplemental site investigation was conducted by Chevron in 1989 that included on- and off-site soil sampling. This sampling identified areas of surface soil contamination showing high levels of pesticides and insecticides. Chevron has capped/paved the off-site contaminated loading area, and installed an additional off-site deep monitoring well to monitor contaminant migration. Previous remedial actions have included paving and capping contaminated on-site soils to reduce migration of contaminants into groundwater.

During 1995, the EPA and the Missouri Department of Natural Resources (DNR) concluded that groundwater monitoring should be conducted annually for a period of five years by the Potentially Responsible Party. If, at the end of five years, there has not been an increase in off-site contaminants, groundwater monitoring may be discontinued.

#### Areas of Concern Related to Site:

This site is located in a commercial and industrial area, bordering residential areas with 3,000 people in a 0.5 mile radius. It is not publicly traveled or considered a public use area. Five private wells have been identified as drawing from the aquifer of concern within a three-mile radius. The primary use of groundwater is to process industrial water. The nearest downslope surface water is Fee Fee Creek, which is occasionally used for trapping.

## General Geologic and Hydrologic Setting:

The site is underlain by 20 to 30 feet of loess, or wind-deposited, clayey silt, over Pennsylvanian shale or residual clay. Below the shale or clay, at a depth of about 30 to 70 feet, there is a limestone unit that is part of the uppermost aquifer at the site.

The confining unit at the base of this aquifer is the Maquoketa Shale, at a depth of several hundred feet. Water from deeper horizons of the limestone aquifer may be too saline to be considered potable, but the shallow part of the bedrock aquifer probably produces good-quality water; however, yields may be low. Groundwater is not widely used in this area, due to the presence of public surface water supplies.

There is perched water in the loess, but yields are so low that this is not considered an aquifer. The perched groundwater has been affected by contaminants at the site. Due to the presence of low-permeability material beneath the loess, the water within the loess is expected to discharge to the surface or to buried sewer lines downgradient of the site.

## **Public Drinking Water Advisory:**

This area is served by St. Louis County Water Company, which utilizes the Missouri and Meramec Rivers as sources. Some area residents may have private wells. This site poses no threat to public water supplies.

## **Health Assessment:**

Investigations have indicated the presence of soil contamination both on and offsite; however, the offsite contamination was found only in the area adjacent to the former arsenic off-loading dock. Since these areas have been capped and paved, potential for human exposure is limited. Also, the potential for human contact with the contaminated soil onsite is low since the site is fenced, secured, and covered with buildings. For these same reasons, the potential for exposure from airborne contaminants is expected to be low. The potential for off-site migration of contaminants through surface water runoff is also expected to be low.

The contaminants that were detected in groundwater either regularly or occasionally included arsenic, lindane, aldrin, dieldrin, xylenes, and the chlorophenoxy acids. Exposure to the public from groundwater contamination is not expected because: (1) the only private wells in the area are one-half mile away and upgradient from the site; and (2) everyone living downgradient for a

distance of at least five miles is provided with public drinking water. The site has been leased to two or three small companies whose business practices do not disturb soil or the parking area/entrance driveway.

Based on available information, the Missouri Department of Health feels that the potential for exposure to the general public and to workers on the site is low under present conditions. However, if conditions at the site change in the future, allowing public accessibility to the contaminants, exposure is possible. Adverse health effects could result if individuals are exposed to soil and water at levels above recommended levels.

For information regarding health related issues, please contact the Missouri Department of Health, P.O. Box 570, Jefferson City, MO 65102, (573) 751-6404

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